



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2019-0581; Product Identifier 2019-NM-067-AD]

RIN 2120-AA64

Airworthiness Directives; Lockheed Martin Corporation/Lockheed Martin Aeronautics Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for all Lockheed Martin Corporation/Lockheed Martin Aeronautics Company Model 382, 382B, 382E, 382F, 382G, C-130A, C-130B, C-130BL, C130E, C-130H, C 130H 30, C130J, C130J-30, EC130Q, HC130H, KC 130H, NC-130B, NC130, and WC-130H airplanes.

This proposed AD was prompted by a report indicating that two elevator booster assemblies experienced significant hydraulic fluid leaks, caused by fatigue cracks in the actuator cylinder. This proposed AD would require an inspection to determine the part number of the elevator booster actuator, repetitive ultrasonic inspections of the actuator to detect cracking, and replacement of cracked elevator booster assemblies. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Lockheed Martin Corporation/Lockheed Martin Aeronautics Company, Customer Support Center, Dept. 3E1M, Zone 0591, 86 S. Cobb Drive, Marietta, GA 30063; telephone 770-494-9131; email hercules.support@lmco.com; Internet <http://www.lockheedmartin.com/en-us/who-we-are/business-areas/aeronautics/mmro/customer-support-center.html>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0581; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received,

and other information. The street address for Docket Operations is listed above.

Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Hector Hernandez, Aerospace Engineer, Systems and Equipment Section, FAA, Atlanta ACO Branch, 1701 Columbia Avenue, College Park, GA 30337; phone: 404-474-5587; fax: 404-474-5606; email: hector.hernandez@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2019-0581; Product Identifier 2019-NM-067-AD” at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. The FAA will consider all comments received by the closing date and may amend this NPRM because of those comments.

The FAA will post all comments received, without change, to <http://www.regulations.gov>, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about this NPRM.

Discussion

The FAA has received a report indicating that two elevator booster assemblies experienced significant hydraulic fluid leaks, caused by fatigue cracks in the actuator cylinder. Laboratory analysis of the cracked elevator booster actuators revealed an

internal area in the cylinder body that is prone to fatigue crack initiation. The fatigue crack propagates unseen within the cylinder under normal operational loading until either a minor fluid leak becomes evident or the cylinder ruptures, creating a major leak. This condition, if not addressed, could result in a dual failure of the left and right actuator cylinders in the elevator booster assembly, which could lead to a significant reduction in controllability of the airplane.

Related Service Information under 1 CFR part 51

The FAA reviewed Lockheed Martin Aeronautics Company Service Bulletin 382-27-51, Revision 1, dated January 17, 2018; and Lockheed Martin Aeronautics Company Service Bulletin 82-833, Revision 1, dated January 17, 2018. This service information describes procedures for an inspection to determine the part number of the elevator booster actuator, repetitive ultrasonic inspections of the elevator booster actuator at the forward-most end to detect cracking along the fluid transfer bore, left and right cylinders, and replacement of cracked elevator booster assemblies. These documents are distinct since they apply to different airplane models.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

The FAA is proposing this AD because the agency evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under “Differences Between this Proposed AD and the Service Information.”

Impact on Intrastate Aviation in Alaska

In light of the heavy reliance on aviation for intrastate transportation in Alaska, the FAA fully considered the effects of this proposed AD (including costs to be borne by affected operators) from the earliest possible stages of AD development. This proposed AD is based on those considerations, and was developed with regard to minimizing the economic impact on operators to the extent possible, consistent with the safety objectives of this proposed AD. In any event, the Federal Aviation Regulations require operators to correct an unsafe condition identified on an airplane to ensure operation of that airplane in an airworthy condition. The FAA has determined in this case that the proposed requirements are necessary and the indirect costs would be outweighed by the safety benefits of the proposed AD.

Differences Between this Proposed AD and the Service Information

Lockheed Martin Aeronautics Company Service Bulletin 382-27-51, Revision 1, dated January 17, 2018; and Lockheed Martin Aeronautics Company Service Bulletin 82-833, Revision 1, dated January 17, 2018; specify to return parts to the manufacturer. This proposed AD would not include that requirement.

Costs of Compliance

The FAA estimates that this proposed AD affects 7 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Part number inspection	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$595
Ultrasonic inspections	5 work-hours X \$85 per hour = \$425 per inspection cycle	\$0	\$425 per inspection cycle	\$2,975 per inspection cycle

The FAA estimates the following costs to do any necessary replacements that would be required based on the results of the proposed inspections. The FAA has no way of determining the number of aircraft that might need these replacements:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replacement	10 work-hours X \$85 per hour = \$850	\$43,000	\$43,850

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Lockheed Martin Corporation/Lockheed Martin Aeronautics Company: Docket No. FAA-2019-0581; Product Identifier 2019-NM-067-AD.

(a) Comments Due Date

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Lockheed Martin Corporation/Lockheed Martin Aeronautics Company Model 382, 382B, 382E, 382F, 382G, C-130A, C-130B, C-130BL, C130E, C-130H, C 130H 30, C130J, C130J-30, EC130Q, HC130H, KC 130H, NC-130B, NC130, and WC-130H airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 27, Flight controls.

(e) Unsafe Condition

This AD was prompted by a report indicating that two elevator booster assemblies experienced significant hydraulic fluid leaks, caused by fatigue cracks in the actuator

cylinder. The FAA is issuing this AD to address the possibility of a dual failure of the left and right actuator cylinders in the elevator booster assembly, which could lead to a significant reduction in controllability of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Part Number Inspection, Repetitive Ultrasonic Inspections, and Replacement

(1) On any elevator booster assembly having a part number 374461-5, 374461-7, or 374461-11, before the accumulation of 4,000 total flight hours on the elevator booster assembly, or within 180 days after the effective date of this AD, whichever occurs later, except as required by paragraph (h) of this AD: Do an inspection of the elevator booster assembly to determine the part number of the elevator booster actuator. If the elevator booster actuator has a part number other than 5C5803, no further action is required by this AD.

(2) If, during the inspection required by paragraph (g)(1) of this AD, any elevator booster actuator having part number 5C5803 is found, before the accumulation of 4,000 total flight hours on the elevator booster assembly, or within 180 days after the effective date of this AD, whichever occurs later, except as required by paragraph (h) of this AD: Do an ultrasonic inspection of the elevator booster actuator at the forward-most end to detect cracking along the fluid transfer bore, left and right cylinders, in accordance with the Accomplishment Instructions of Lockheed Martin Aeronautics Company Service Bulletin 382-27-51, Revision 1, dated January 17, 2018; or Lockheed Martin Aeronautics Company Service Bulletin 82-833, Revision 1, dated January 17, 2018; as applicable. Repeat the inspection thereafter at intervals not to exceed 1,400 flight hours.

(3) If, during any inspection required by paragraph (g)(2) of this AD, any cracking is found, before further flight: Replace the elevator booster assembly, in accordance with the Accomplishment Instructions of Lockheed Martin Aeronautics Company Service Bulletin 382-27-51, Revision 1, dated January 17, 2018; or Lockheed Martin Aeronautics Company Service Bulletin 82-833, Revision 1, dated January 17, 2018; as applicable.

(h) Compliance Time Exception

For any elevator booster assembly having part number 374461-5, 374461-7, or 374461-11 on which the total flight cycles are unknown, do the inspections required by paragraphs (g)(1) and (g)(2) of this AD, as applicable, within 180 days after the effective date of this AD.

(i) No Reporting and No Return of Parts

(1) Although Lockheed Martin Aeronautics Company Service Bulletin 382-27-51, Revision 1, dated January 17, 2018; and Lockheed Martin Aeronautics Company Service Bulletin 82-833, Revision 1, dated January 17, 2018; specify to report submit certain information to the manufacturer, this AD does not include that requirement.

(2) Although Lockheed Martin Aeronautics Company Service Bulletin 382-27-51, Revision 1, dated January 17, 2018; and Lockheed Martin Aeronautics Company Service Bulletin 82-833, Revision 1, dated January 17, 2018; specify to return parts to the manufacturer, this AD does not require the return of the parts to the manufacturer.

(j) Credit for Previous Actions

This paragraph provides credit for the actions specified in paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Lockheed

Martin Aeronautics Company Service Bulletin 382-27-51, dated July 17, 2017; or Lockheed Martin Aeronautics Company Service Bulletin 82-833, dated April 28, 2017; as applicable.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (l)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by a Lockheed Martin Corporation/Lockheed Martin Aeronautics Company Designated Engineering Representative (DER) that has been authorized by the Manager, Atlanta ACO Branch, FAA, to make those findings. To be approved, the repair, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(l) Related Information

(1) For more information about this AD, contact Hector Hernandez, Aerospace Engineer, Systems and Equipment Section, FAA, Atlanta ACO Branch, 1701 Columbia

Avenue, College Park, GA 30337; phone: 404-474-5587; fax: 404-474-5606; email: hector.hernandez@faa.gov.

(2) For service information identified in this AD, contact Lockheed Martin Corporation/Lockheed Martin Aeronautics Company, Customer Support Center, Dept. 3E1M, Zone 0591, 86 S. Cobb Drive, Marietta, GA 30063; telephone 770-494-9131; email hercules.support@lmco.com; Internet <http://www.lockheedmartin.com/en-us/who-we-are/business-areas/aeronautics/mmro/customer-support-center.html>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued in Des Moines, Washington, on July 24, 2019.

Dionne Palermo,
Acting Director,
System Oversight Division,
Aircraft Certification Service.

[FR Doc. 2019-16130 Filed: 7/30/2019 8:45 am; Publication Date: 7/31/2019]